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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,689	07/21/2003	Shaoxing Lu	237687US0	4413

22850 7590 11/29/2004

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ALEXANDRIA, VA 22314

EXAMINER
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PENG, KUO LIANG

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/622,689

Applicant(s)

LU ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10/13/04 Response.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,5-9,13-17,20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,10-12,18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/13/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The following Office action is based on the interpretation of chemical formulae set forth in Claims 1, 3 and 5 being the copolymers where in the backbone of the copolymers, the polysiloxane block(s) is/are connected to another polysiloxane block(s) and/or oxyalkylene block(s) via the amide linkage(s) of  $(\text{CH}_2)_x\text{C}(\text{O})\text{NH}(\text{CH}_2)_x\text{NH}(\text{O})\text{C}(\text{CH}_2)_x$ .
2. Applicant's election with traverse of Claims 3-4, 10-12 and 18-19 in the response to restriction requirement filed on October 13, 2004 is acknowledged. The traversal is on the ground(s) that a) Group II does not have a different effect from Groups I and III; and b) there is no burden in searching and/or examining all claims together because the classification of Group II and the classifications of Groups I and III overlaps. This is not found persuasive because of the following reasons:

For a), Group II is directed to a poly(oxyalkylene-b-polysiloxane), while Group I is directed to a poly(oxyalkylene-g-polysiloxane) and Group III is directed to a poly(oxyalkylene-b/g-polysiloxane). Note that molecular architecture of a copolymer containing a polyoxyalkylene blocks is quite different from those of polymers containing polyoxyalkylene grafts. Especially, in the present invention,

the polyoxyalkylene grafts are grafted to the polymer backbone via Si-C bonds, while the polyoxyalkylene blocks are built into the polymer backbone via amide linkages. The properties of them are different.

For b), although the classifications of these groups seem to overlap, Applicants should notice that in the present invention, the requirements for searching polyoxyalkylene grafts and polyoxyalkylene blocks are totally different. The formation of polyoxyalkylene grafts via Si-C bonds typically requires the hydrosilylation between polyoxyalkylene containing an unsaturated carbon-carbon bond and a polysiloxane containing Si-H groups. On the other hand, the formation of polyoxyalkylene blocks via amide linkages typically requires the condensation reaction between a polyoxyalkylene end-capped carboxylic groups and a diamine in the presence of a functional polysiloxane. The reaction mechanisms are totally different. Therefore, it would place on the Office undue burden in searching and/or examining all claims together.

Therefore, Claims 1-2, 5-9, 13-17 and 20-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 3-4, 10-12 and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Lu (US 2004/0001799).

Lu discloses a copolymer represented by formula (I) containing oxyalkylene moieties in the backbone, which reads on the copolymer of the present invention. The composition of the present invention may be in a form chosen from a paste, a solid, a gel, and a cream. It may be an emulsion, such as an oil-in-water or water-in-oil emulsion, a multiple emulsion, such as an oil-in-water-in-oil emulsion or a water-in-oil-in-water emulsion, or a solid, rigid or supple gel, including anhydrous gels. In one embodiment, the composition of the invention is anhydrous. The

composition of the invention may, for example, comprise an external or continuous fatty phase. In another embodiment, the composition of the invention is transparent or clear, including for example, a composition without pigments. The composition can also be in a form chosen from a translucent anhydrous gel and a transparent anhydrous gel. The composition can also be a molded composition or cast as a stick or a dish. The composition in one embodiment is a solid such as a molded stick or a poured stick. The copolymer used as thickening agents in base and cosmetic compositions of the present invention contain both siloxane units and amide linkages. The siloxane units provide compatibility with the silicone fluid (for example with the cyclomethicones), while the amide linkages and the spacing and selection of the locations of the amide linkages facilitate gelation and the formation of cosmetic products. In the base composition, the polyamide gelling agent can be used in an amount of 0.1-80 percent by weight, more particularly 0.5-30 percent by weight and most particularly 1-20 percent by weight. It is preferred that the gellant not exceed 50 percent by weight of the base composition. The silicone fluid portion is in the range of 5-95 percent by weight, more particularly 10-80 percent by weight, even more particularly 20-80 percent by weight. Optionally, additional solvents, mixtures of solvents or cosmetic additives may be added to the base composition.

Suitable additional solvents are those which are either themselves or in mixtures with other solvents miscible in the originally selected silicone fluid (for example, C14-C20 fatty alcohols, isopropyl myristate, and PPG-3 myristyl ether). The siloxane-based polyamide gelling agent can consist of one or more polyamides as described above (or a mixture of these polymers) as the sole gelling agent, or can contain the polyamide admixed with other thickening agents (including conventional gelling agents). The siloxane units provide compatibility with the silicone fluids, while the amide linkages and the spacing and selection of the locations of the amide linkages facilitate gelation and the formation of cosmetic products. ([0019], [0037]-[0051], [0071], [0215]-0217] and Examples)

4. Claims 3-4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wittmann (US 4 822 852).

Wittmann discloses a composition comprising a copolyamide of formula (I). The polyamides containing polydiorganosiloxane carbonamide units may be prepared by partly replacing the dicarboxylic acid(s)/derivative(s) and/or the diamine or the lactam or the aminocarboxylic acid in processes known per se for the production of polyamides, for example melt condensation or interfacial condensation of dicarboxylic acids or derivatives thereof and diamines or of

aminocarboxylic acids and lactams, by corresponding amino- or carboxyl-terminated, so-called organofunctional polydiorganosiloxane compounds. (col. 2, lines 49-59) The polydiorganosiloxane units may be attached either to one another and/or to the polyamide-forming components (including the polyether diamines) through the carbonamide groups. The use of the organofunctional polydiorganosiloxane components is characterized in that, after the incorporation reaction, only a very small proportion can be extracted from the polyamide with a good solvent for the starting siloxane. (col. 5, lines 16-23) These polyoxyalkylene ether diamines may be prepared, for example, by amination of polyoxyalkylene etherdiols under pressure, by addition of acrylonitrile to polyetherdiols and subsequent reduction of the nitrile group, by alkali-catalyzed hydrolysis of NCO prepolymers of polyetherdiols and (cyclo)aliphatic diisocyanates or by other known methods. Examples of polyether diamines eminently suitable for use in accordance with the invention are the commercially available Jeffamines<sup>®</sup>. (col. 4, lines 57-66)

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is

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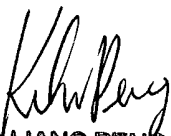
(571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp

November 23, 2004

  
KUO-LIANG PENG  
PRIMARY EXAMINER

Kuo-Liang Peng  
Primary Examiner  
Art Unit 1712